REMARKS

Claims 1, 3, 6-9, 11-15 and 21-22 are pending in the present application. Reconsideration of the application is respectfully requested.

In the Office Action, claims 1, 3, 6-9, 11-15, 21 and 22 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by Fang (U.S. Patent No. 6,133,746). Applicants respectfully traverse the Examiner's rejections.

As the Examiner well knows, an anticipating reference by definition must disclose every limitation of the rejected claim in the same relationship to one another as set forth in the claim. *In re Bond*, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). To the extent the Examiner relies on principles of inherency in making the anticipation rejections in the Office Action, inherency requires that the asserted proposition necessarily flow from the disclosure. *In re Oelrich*, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981); *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1463-64 (Bd. Pat. App. & Int. 1990); *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1789 (Bd. Pat. App. & Int. 1987); *In re King*, 231 U.S.P.Q. 136, 138 (Fed. Cir. 1986). It is not enough that a reference could have, should have, or would have been used as the claimed invention. "The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Oelrich*, at 326, quoting *Hansgirg v. Kemmer*, 40 U.S.P.Q. 665, 667 (C.C.P.A. 1939); *In re Rijckaert*, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993), quoting *Oelrich*, at 326; see also *Skinner*, at 1789. "Inherency ... may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Skinner*, at 1789, citing *Oelrich*. Where anticipation is found through inherency, the Office's burden of establishing prima facie anticipation includes the burden of providing "...some evidence or scientific reasoning to

establish the reasonableness of the examiner's belief that the functional limitation is an inherent characteristic of the prior art." *Skinner* at 1789.

Moreover, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Health-care Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out

and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991; *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

Independent claim 1 recites that the semiconductor device is a flash memory device and that the electrical test is performed to determine a duration of a programming cycle for the flash memory device. Claim 1 also recites that the act of determining at least one parameter of a process operation to be performed to form a gate insulation layer on a subsequently formed flash memory device is based upon the determined duration of the programming cycle.

Independent claim 9 is similar to claim 1 except that the electrical test is performed to determine the duration of an erase cycle for the flash memory device.

Independent claims 21 and 22 are similar to claims 1 and 9, respectively, with respect to the tested electrical parameter. Claims 21 and 22 further recite that the device is a generic "memory device."

It is respectfully submitted that Fang does not disclose or suggest the inventions set forth in the pending claims. Fang is directed to a method of determining reliable gate oxide thicknesses by subjecting test transistors to an alternating current (AC) voltage until the transistors break down. Abstract. Fang specifically notes that the "conventional approach for determining the reliability of a transistor is to stress gate oxides of varying thickness under direct current (DC) conditions and project the gate oxide reliability for an industry standard ten-year lifetime." Col. 1, ll. 58-62. Fang states that more realistic results can be obtained by stressing the gate oxide layer based upon AC stress conditions that are more consistent with the operating conditions of the transistor. Col. 3, ll. 9-17.

Fang discloses that the test structures are subjected to an AC stress voltage and the time or duration until breakdown occurs is measured. Col. 4, ll. 23-27. Thereafter, certain reliability parameters are determined from the reliability data, such as the measured breakdown times. Col. 4, ll. 36-48. Once the reliability parameters have been determined, the gate oxide for a ten-year lifetime is calculated. Col. 4, ll. 63-65.

In the Office Action, the Examiner asserted that Fang disclosed "determining at least one parameter 106 of at least one process operation to be performed to form at least one gate insulation layer 108 on a subsequently formed flash memory device based upon the determined duration of the programming cycle (col. 3, line 66 to col. 4, line 35 and FIG. 1)...." Office Action, p. 2. Applicants respectfully disagree. The undersigned has read the cited passages of Fang and cannot find any support for such a statement. If the Examiner maintains the present rejection, the undersigned would appreciate a quotation of the sentences relied upon by the Examiner for this disclosure. It is respectfully submitted that there is no such disclosure in Fang. Accordingly, it is respectfully submitted that the Examiner's anticipation rejections should be withdrawn.

Additionally, in independent claims 9 and 22, the subject electrical test parameter is the "duration of the erase cycle." At no point does the Examiner ever acknowledge the express differences with respect to this aspect of claims 9 and 22 as compared to claims 1 and 21. Moreover, the Examiner did not cite to any disclosure in Fang for the disclosure of determining the duration of an erase cycle for a memory device. Fang certainly does not disclose this subject matter. Accordingly, the Examiner's rejection of independent claims 9 and 22 should be withdrawn.

For at least the aforementioned reasons, it is respectfully submitted that all pending claims are in condition for immediate allowance. The Examiner is invited to contact the undersigned attorney at (713) 934-4055 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

WILLIAMS, MORGAN & AMERSON
CUSTOMER NO. 23720

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J. Mike Amerson
Reg. No. 35,426
10333 Richmond, Suite 1100
Houston, Texas 77042
(713) 934-4056
(713) 934-7011 (facsimile)

ATTORNEY FOR APPLICANTS